

## (12) United States Patent Eisele et al.

## (54) MEASURING APPARATUS AND MEASURING DEVICE FOR MEASURING A TARGET OBJECT IN A MULTIDIMENSIONAL MANNER

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See application file for complete search history.

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## (57)ABSTRACT

The disclosure relates to a measuring apparatus, in particular a handheld measuring apparatus, for measuring a target object in a multidimensional manner, wherein the distance to individual object points of the target object is sequentially measured, in particular using a phase-measuring system, which apparatus has at least: a transmitting device for emitting optical measuring radiation towards the target object; a receiving device having a detection area for detecting optical measuring radiation returning from the target object; a scanning system for deflecting the optical measuring radiation, and an evaluation device for determining measured distance values. The detection area of the receiving device has a plurality of pixels, wherein each pixel has at least one SPAD, and wherein each of the plurality of (Continued)

